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10/517,375	06/09/2005	Yoko Hanada	262666US0PCT	4697
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
PALENIK, JEFFREY T				
ART UNIT		PAPER NUMBER		
1615				
NOTIFICATION DATE		DELIVERY MODE		
11/25/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

## Application No.

10/517,375

## Applicant(s)

HANADA ET AL.

## Examiner

Jeffrey T. Palenik

## Art Unit

1615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 2,4-8,10,12,14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,9,11,13,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_



### DETAILED ACTION

#### STATUS OF THE APPLICATION

Receipt is acknowledged of Applicants' Amendments and Remarks filed, filed 30 July 2009, in the matter of Application N° 10/517,375. Said filings are entered on the record. The Examiner further acknowledges the following:

No claims have been canceled.

Claims 16 and 17 are newly added and derive support from Table I in the Examples of Applicants' instant disclosure.

Claim 1 has been amended to exclude the tertiary amine limitations regarding core formula (1), thereby limiting component (B) to the limitations of core formula (2).

No new matter has been added.

#### RESPONSE TO RESTRICTION REMARKS

Applicants request for reconsideration of the restriction requirement over the reference to Ando et al. has been fully reconsidered by the Examiner, but is **not persuasive**. Applicants continue to traverse on the grounds that the restriction requirement newly presented in view of Ando is not clear.

The Examiner respectfully disagrees and maintains the restriction for the reasons already made of record, namely that the teachings of Ando, specifically claim 1, is directed to a block copolymer composition comprising an amino-modified organopolysiloxane chain and a polyalkylene chain which is modified at the variable "X" by the core formula "-R<sup>3</sup>-Z-" where



“Z” signifies a group inclusive of an amino group. As such, the Examiner maintains that the claims do not relate to a single inventive concept under PCT Rules 13.1 and 13.2.

Thus, claims 1, 3, 9, 11, 13, 16 and 17 now represent all claims currently under consideration.

#### **INFORMATION DISCLOSURE STATEMENT**

No new Information Disclosure Statements (IDS) have been filed for consideration.

#### **CLAIM REJECTIONS - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

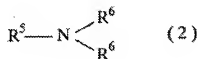
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any



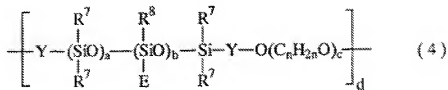
evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(c), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over combined teachings of Kondo et al. (USPN 6,086,663) and Ando et al. (JP 1997-151119).

Independent claim 1 is directed to a hair cosmetic composition comprising components (A) and (B), wherein (A) is an amino-modified organopolysiloxane chain and a polyoxyalkylene chain, and (B) is at least one cationic surfactant having a core formula selected from the group consisting of formula (2):



Claims 3 and 9 further limit the composition of claim 1 such that component (A) is in the form of a block copolymer of the following core formula (4):



R<sub>7</sub> is recited as being a hydrogen or C<sub>1</sub>-C<sub>6</sub> hydrocarbon group. R<sub>8</sub> is recited as being the same as R<sub>7</sub> or E, where E is a reactive functional group represented by -R<sub>9</sub>Z-, where R<sub>9</sub> is a C<sub>1</sub>-C<sub>20</sub> divalent hydrocarbon group and Z is a primary or tertiary amino group-containing group or an ammonium group-containing group, where "a" is 2 or greater, "b" is 1 or greater, "c" is 4 or greater, "d" is 2 or greater, "Y" is a divalent organic group bound via a carbon-silicon atom to

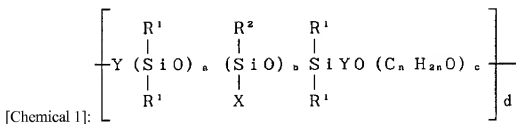


the adjacent silicon atom via an oxygen atom to the polyoxyalkylene block chain. Claim 11 recites that the ratio of the siloxane block (A) is 25-97% by weight of the whole block copolymer. Claim 13, in accordance with the elected species, recites stearyl alcohol.

Kondo teaches surface modifier compositions for use in cosmetic compositions such as hair care products (Example 3). Comparative Example 6 is a composition comprising an amino-modified polysiloxane mixed with the cationic surfactant stearyltrimethylammonium chloride and cetyl alcohol. Stearyl alcohol is taught as a functionally equivalent aliphatic alcohol stabilizing compounds (col. 5, lines 29-33).

Kondo does not expressly teach the amino-modified polysiloxane as instantly claimed in claims 3, 9 and 11.

Ando et al. expressly teach the limitations of claims 3 and 9, wherein a hair cosmetic ingredient is characterized by the inclusion of a reactive silicone-type block copolymer expressed by the following general formula:



Within the formula, R<sup>1</sup> signifies a monovalent hydrocarbon group (e.g. methyl), whereas "X" signifies a reactive functional group expressed by the following formula: -R<sup>3</sup>-Z. The variable R<sup>3</sup> signifies a direct bond or divalent hydrocarbon group 1-20 carbon atoms in length, whereas "Z" represents a group comprising either an amino or ammonium group. The variable R<sup>2</sup> represents either R<sup>1</sup> or "X". The variable "n" is an integer having a value of 2-4, "a" is an integer of at least 2,



“b” is an integer of at least 1, “c” is an integer of at least 4, “d” is an integer of at least 2, and “Y” represents a divalent organic group coupled, via carbon-silicon, with an adjacent silicon atom and, via an oxygen atom, with a polyoxyalkylene block. The limitations of claim 11 are also taught by Ando in claim 1, such that the siloxane blocks constitute approximately 25-95 wt% of the whole block copolymer. Ando teaches in ¶[0017] that the practiced hair cosmetic ingredient discussed above, maybe further solubilized or dispersed (e.g. combined with) into an alcohol (e.g. cetyl alcohol; see Table IV) or dispersed within water by using a surfactant.

Ando et al. do not expressly teach either of the elected alcohol or cationic surfactant components of the instant invention.

However, it would have been *prime facie* obvious to a person of ordinary skill at the time the invention was made to have incorporated the amino-modified organopolysiloxane component of Ando into the invention practiced by Kondo, particularly since both inventions are directed to the creation of cosmetic compositions, more specifically hair care products. Given that the intended uses of the amino-modified polysiloxanes compositions in both inventions is directed towards the preparation of hair-care products by mixture with alcohol and surfactants, it follows that the ordinarily skilled artisan would have been highly motivated to substitute the amino-modified organopolysiloxane-polyethylene oxide block copolymer (per Ando) for the amino-modified polysiloxane component taught by Kondo. Thus, since the inventions to Kondo and Ando demonstrate inventive overlap, as discussed above, one of ordinary skill in the art would also have been particularly motivated to prepare the instantly claimed hair cosmetic. Thus, it would have been *prima facie* obvious to combine the teachings, each of which are taught by the



art as being useful for the same purpose, in order to form a third composition, such as that which is instantly claimed, to be used for the very same purpose; the idea of combining them flowing logically from their having been individually taught in the prior art (MPEP §2144.06). *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the reference, especially in the absence of evidence to the contrary.

#### RESPONSE TO ARGUMENTS

Applicants' arguments with regard to the rejection of claims 1, 3, 9, 11 and 13 under 35 USC 103(a) as being unpatentable over the combined teachings of Kondo et al. and Ando et al. have been fully considered but they are not persuasive.

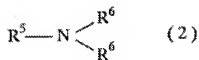
Applicants allege that Kondo relates to the teaching of amide polyether-modified organopolysiloxanes rather than amino-modified polysiloxanes, further citing that the amino modified composition which is taught in Comparative Example 6 is an inferior composition compared to the amide-modified composition (e.g. dubbing it a "failed experiment"). Applicants also suggest that Kondo neither teaches nor suggests the tertiary amine compound of formula (2) of the amended claim 1.

In response, the Examiner respectfully disagrees and submits that Comparative Example 6 teaches and suggests Applicants' instantly claimed composition. That is the composition is

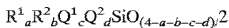


made known in the art regardless of its qualities. Furthermore, the MPEP states that “[a] known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.” *In re Gurley*, 27 F.3d 51, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) Despite that the composition is taught as a “comparative” example does not change the fact that it is a disclosed example, albeit a nonpreferred one. It is still a part of the art of record (MPEP §2123(II)).

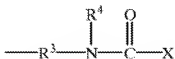
The Examiner further respectfully disagrees with Applicants’ position that the Kondo reference does not teach or suggest the “Formula (2)” embodiment of the amended base claim. Formula (2) is as follows:



The formula for the modifying component for the surface-modified organopolysiloxane comprises the following core formula (1):



Here, both  $\text{R}^1$  and  $\text{R}^2$  can be hydrogen molecules and  $\text{Q}^1_c$  may be defined as core formula (2) below:



The “(C=O)-X” is considered by the Examiner as being homologous to the “ $\text{R}^5$ ” variable of the claimed formula (2), particularly since it meets the limitations of being 8-35 carbons in length and that it is optionally interrupted by functional groups. “X” is represented by the



following core formula in the art:



where  $R^7$  is a divalent hydrocarbon of 2-18 carbons in length,  $R^8$  is a divalent hydrocarbon 3-10 carbons in length and “Y” may be a hydrogen atom. The variables “e” through “h” are taught such that each may be equal to 1. As such this branch of the tertiary amine is considered as reading on  $R^5$  of the claimed tertiary amine. Regarding the portion of core formula (1) above, designated  $Q^2_d$ , the reference clearly teaches that the variable “d” may have a value of 0, when the variable “g” does not. Given that “g” is taught as being equivalent to at least a value of 1, it follows that “d” may be 0 and thus  $Q^2_d$  would not be present.

Regarding the variables ( $R^3$ ) and ( $R^4$ ) above, the Examiner considers both of these variables as being homologous to and reading on each of the ( $R^6$ ) variables recited by the instant core formula (2). Claim 1 recites that each of the ( $R^6$ ) variables may be the same or different and that they represent groups which are 1-22 carbon atoms in length.

As such in view of the forgoing teachings regarding the modifying portion of the composition, the Examiner construes the teachings of record as continuing to read upon and render obvious the instantly claimed invention.

For these reasons, Applicants’ arguments are found unpersuasive. Said rejection is therefore **maintained** and is extended to include the limitations of new claim 17.

#### NEW REJECTIONS

In light of Applicants’ newly added claims 16 and 17, the following objections and rejections are newly added:



### **CLAIM OBJECTIONS**

Claim 17 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 1, as presently amended makes no reference to a “lubricant” component as recited in claim 17.

### **CLAIM REJECTIONS - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation “the lubricant”. There is insufficient antecedent basis for this limitation in the claim.

### **CLAIM REJECTIONS - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Kondo et al. and Ando et al. as set forth above with respect to claim 1, further in combination with Martin et al. (USPN 5,078,990).

New claim 16 recites that the amended composition of claim 1, namely core formula (2), is specifically embodied by either of the compounds behenyl dimethylamine or stearamide propyldimethylamine.

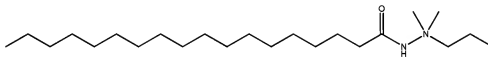
Neither Kondo nor Ando expressly teach using either of these specific compounds. As discussed above, Kondo does teach modifier compounds which align with the broader recitations



for core formula (2) of claim 1. However, Kondo does not expressly teach either of the compounds of claim 16.

The teachings of Martin, like both Kondo and Ando, are directed to shampoos and conditioning shampoo compositions (Title). Regarding the conditioning agents which may be incorporated into the practiced shampoo/conditioner formulations, Martin teaches that such components may include both polysiloxane polyether copolymers as well as stearamido propyl dimethylamine (col. 10, line 59 to col. 11, line 15).

It would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to modify the composition taught and suggested by Kondo and Ando using the teachings of Martin and arrive at the instantly claimed formulation. The ordinarily skilled artisan would have readily recognized the compound stearamido propyl dimethylamine as being a species of tertiary amine as shown below:



Stearamido propyl dimethylamine

Given that the intended uses of the amino-modified polysiloxanes compositions in both inventions is exclusively directed towards the preparation of hair-care products, specifically, those used for softening and conditioning, it follows that the ordinarily skilled artisan would have been highly motivated to modify the tertiary amine compounds taught and suggested by Kondo for the modifier taught by Martin. Thus, since the combined teachings of Kondo and Ando and Martin demonstrate inventive overlap, as discussed above, one of ordinary skill in the art would also have been particularly motivated to prepare the instantly claimed hair cosmetic.



Thus, it would have been *prima facie* obvious to combine the teachings, each of which are taught by the art as being useful for the same purpose, in order to form a third composition, such as that which is instantly claimed, to be used for the very same purpose; the idea of combining them flowing logically from their having been individually taught in the prior art (MPEP §2144.06). *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the reference, especially in the absence of evidence to the contrary.

All claims have been rejected; no claims are allowed.

#### CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR



1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### **CORRESPONDENCE**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey T. Palenik whose telephone number is (571) 270-1966. The examiner can normally be reached on 7:30 am - 5:00 pm; M-F (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax can be reached on (571) 272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey T. Palenik/  
Examiner, Art Unit 1615

/Robert A. Wax/  
Supervisory Patent Examiner, Art Unit 1615